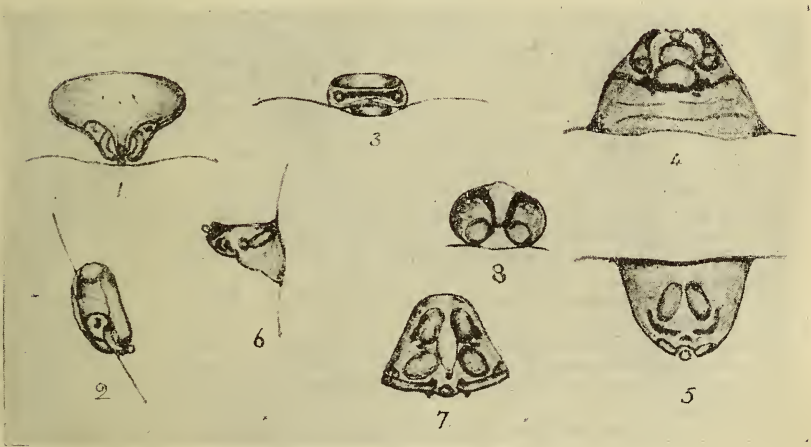


NEW AND RARE BRITISH SPIDERS.

WM. FALCONER,
Slaitwaite, Huddersfield

DURING recent years many rare spiders have passed through my hands, and a few of the most noteworthy are here given more accessible and permanent record than that afforded by my note-books, together with the descriptions and figures of two species which I believe to be new to science. Collectors and localities :—R.A.T. the Rev. R. A. Taylor, of Burnley, Cornwall, 1913-17 ; W.P.W., Mr. W. P. Winter, of Shipley,



Troglodyphantes margerisoni sp. nov.

Epigyne of female. Fig. 1, from below ; fig. 2, from the side and a little below.

Enoplognatha mandibularis Luc.

Fig. 3. Epigyne of female.

Maro humicola sp. nov.

Epigyne of female. Fig. 4, view of lower surface. Fig. 5, view of upper surface.
 Fig. 6, in profile.

Maro minutus Camb.

Fig. 7. Epigyne of female.

Maro falconerij Jacks.

Fig. 8. Epigyne of female.

Gloucestershire, 1912-14 ; T.S., Mr. T. Stainforth, of Hull, Norfolk, July, 1916, Sussex, 1917 ; S.M. Mr. S. Margerison, Cumberland, 1913 ; uninitialled, the writer, Lancashire, 1903 and 1912, Isle of Man, 1908, Sussex, 1911.

Drassus minusculus L. Koch. ♀, Yarmouth, T.S. ; the few other records known to me are all for the south of England.

Prothesima nigrita Fabr. ♀, Charlton Common, W.P.W., widespread but rare.

Clubiona cærulescens L. Koch. ♂, Arnside Knot, beneath débris of conifers, August, 1903; reported from a few places in the south; the only other northern record, Aberdeen ('Spiders of Dorset').

C. subtilis L. Koch. Both sexes, Yarmouth, T.S., a southern, mostly dune, spider, but plentiful on Spurn and in Wicken Fen.

Agroeca striata Kulcz. ♀, Puckham, W.P.W., noted for a few places on the south coast.

Scotina gracilipes Bl. Four ♂s, Point of Ayre, Isle of Man.

Cryphoea silvicola C.L.K. Andover and Leckhampton, ♀, W.P.W., a northern form, stated not to occur south of Norfolk, but as it has also been taken in Glamorgan (Dr. Jackson), it is thus found to extend farther along the western than the eastern side of Great Britain.

Theridion blackwallii Camb., ♂, Poulton, Lancashire, R.A.T., July, 1917; rare, on record for Surrey, Oxford, Wicken Fen and Northants.

Teutana grossa C. L. Koch, a melanic ♀, Lizard Peninsula, R.A.T.; very rare as a British species, reported from S.W. Ireland and two or three localities in S.W. England; a Mediterranean species.

Enoplognatha mandibularis Luc. ♀, Yarmouth, T.S. Previous records, Dorset and Channel Islands; abroad, extending from the Mediterranean countries eastward to China. As no figure or description of the epigyne appears in any English work, I give both. The organ (fig. 3) is minute, inconspicuous and the details not easily made out; it is transverse and close up to the epigastric border; anteriorly there is a small, narrow transverse process, directed slightly inwards; behind this a transverse ventlike orifice, having at each end a tiny round tubercle; the posterior margin curves inwards.

Laseola inornata Camb., ♂, Point of Ayre, Isle of Man; other records are all for the south.

Troglohyphantes margerisoni sp. nov. (figs. 1 and 2). One ♀, south of Buttermere, Sept., 1913, S.M., to whose memory I have the greatest pleasure in dedicating it. Description and figures, pp. 295 and 297.

Hilaiva excisa Camb. Lizard Peninsula, R.A.T., ♀. I know no other southern records, except for Glamorgan and Dorset.

Coryphæus denticelalis Sim. (*Tmeticus simplex*). ♀. Fairhaven, near Lytham, on foreshore; widely distributed but uncommon, often occurring in sewage works.

Sintula cornigera Bl. ♀, Grange-on-Sands. Widespread, but rare.

Maro humicola sp. nov. (figs. 4, 5, 6). ♀s, Ainley Place beck, Slaithwaite, odd examples every year since 1911 (April and May); 1 ♀ Hardcastle Crags, Hebden Bridge. In the former place confined to a small recess between the wood and the miniature ravine. Persistent search there and elsewhere has failed to turn up the male. Other rare species of the same genus (*minutus* Camb. and *falconerii* Jacks.) equally as small occur with it, but more frequently in both sexes. Description and figures pp. 295 and 300.

Entelecara thorellii Westr. ♀, Cleethorpes, E. A. Parsons, May, 1910, reported from Northumberland, Cumbs., Westmorland, Yorks., Southport and Edinburgh.

Styloctetor penicillatus Westr. Cheltenham, W.P.W.

Prosopotheca monoceros Wid. Crickley and Cheltenham, W.P.W.

Walckenaera nodosa Camb. ♂, ♀, Buttermere, S.M.; on record for Ulster, Northumberland, Cumbs., Yorks., Staffs., Dorset and North France.

Meta menardi Latr. ♀s, Chapel-en-le-Frith, C. Hastings; Buttermere, both sexes, S.M.; Cave at Killibegs, Donegal, October, 1911, R. Sanderson.

Philodromus praedatus Camb. ♂, Maresfield, Sussex, T.S. Its validity as a species distinct from *P. aureolus* Clerck has been questioned, but it differs somewhat in markings and is of stouter build; its palp and palpal organs are on a larger scale, and the spines beneath the palpal tibiae are more numerous and stronger. Simon, the most noted of arachnologists, believes it to be a good species. On record for Dorset and Delamere (Cheshire).

Oxyptila flexa Camb. ♀, Puckham, W.P.W. For many years it has been known that the names *O. flexa* and *O. praticola* attached to figs. 11c. and 11e. Pl. B. Proc. Dorset Field Club, Vol. XVI., 1895, are wrongly placed and should be transposed to be correct, but Mr. Cambridge for some reason or other never published the correction.

O. sanctuaria Camb. Clarach Valley, Aberystwith, 1♂, August, 1911, W.P.W.; Polegate, Sussex, 1♂.

Xysticus ulmi Hahn. Two ♀s, adult and imm. examples, Martin Beck Wood, V.C. 63, Dr. Corbett, new to Yorkshire. The examples stated to have been taken in Yorkshire (*Trans. Linn. Soc.*, Vol. XXVII., 1870, p. 405, sub *Thomisus westwoodii* Camb.) were really from Oxfordshire.

DESCRIPTION OF NEW SPECIES.

TROGLOHYPHANTES-MARGERISONI, sp. nov.

Female, length 2.6 m.m., figs. 1 and 2.

CEPHALOTHORAX, wholly suffused blackish, with a slender darker marginal line; broadly ovate, a little longer than wide, well attenuated forward. *Caput* distinctly defined by wide, deep, converging lateral depressions; a little elevated behind the eyes and sloping forward. *Profile line* thence curving to the thoracic junction, where there is a long linear dark reddish brown stria, behind which the posterior slope, triangularly excavated, descends gradually to the widely and shallowly emarginate posterior margin. *Thoracic sutures* widely sunk. *Hairs*, few, 3-4 stiff forward curved ones in a longitudinal line centrally placed behind the posterior eyes.

OCULAR AREA, prominent, the eyes occupying the whole of the upper front; provided with a few strong hairs.

EYES, eight in two rows. *Posterior* row somewhat recurved, eyes moderate in size, well separated, equidistant, the centrals apparently a little the smaller. *Anterior* row slightly procurved, the central pair somewhat projecting, much the smallest of the eight and closer to each other than to the laterals, which are apparently larger than the posterior ones. *Lateral eyes* on strong prominences. *Central eye space* a little longer than wide, and much narrower in front than behind. The limits of the eyes, however, are ill-defined and the pigmentation is weak, and details therefore difficult to make out correctly.

CLYPEUS, a little higher than the ocular area and concave below it, (the concavity all the more conspicuous by reason of the advanced position of the eyes) and then inclined to the frontal edge, near which is a transverse line of 6-7 short spines.

FALCES, MAXILLAE, LABIUM and PALPI, dull yellow brown, slightly suffused blackish.

FALCES, strong, without basal smooth area, much exceeding the clypeus in length, vertical, cylindrical towards base, then somewhat convex in front and behind, finally attenuated and a little divergent towards extremity and roundly truncated on apical inner margin. Towards the inner edge of each a longitudinal row of three long strong bristles directed across each other. A little below the middle of the inner face, a group of small, irregularly disposed spines.

Upper fang groove armed with 3 spaced conical teeth, the middle one the longest, the third shorter and blunter, all well removed from the insertion of the fang, which is long, curved and sharply pointed. *Lower fang groove* with 4 small contiguous granular teeth.

MAXILLAE, about $1\frac{1}{2}$ times as long as broad, internally curved towards the labium, obliquely truncate at apex, leaving an obtuse angle above, near which is a short, slender, black, sloping serrula; this angle and the inner margin as far as the labium clothed with a dense scopula of long hairs. On the outer surface a number of scattered stiff hairs, longer and more numerous on external margin, one especially so and strong.

LABIUM soldered to abdomen, much wider than high, and deeply impressed below. Apex roundly reflexed, with two pairs of hairs on inner margin and one pair on the outer.

ROSTRUM, projecting conspicuously above the labium; its posterior face with some very minute spines, but difficult to make out.

PALPI, fairly long. *Trochanter*, very short. *Femur*, long and curved, without spines, a little shorter than the tarse. *Patella*, very little longer than wide with a very long outer apical spine, about equal to four times the diameter of the joint. *Tibia*, nearly twice as long as the patella, very slightly enlarged upwards with three spines close to the apex, two of them on inner side; an acoustic seta in the middle. *Tarsus*, acuminate, ending in a long almost straight claw; about double the length of the tibia; well supplied with spines, towards the base two dorsal and one internal, near the middle two lateral spines, in terminal half five lateral spines (three internally and two externally).

STERNUM, suffused blackish, large, heartshaped, about as wide as long, convex especially behind, inflexed between the posterior legs in a broad parallel-sided prolongation equal to the diameter of the coxae; scattered over the surface a number of long straight black hairs, 4 (a central pair and lateral 1-1) near posterior margin especially long and bristly and upturned.

LEGS, order of length, 1, 4, 2, 3, very long and slender, yellowish brown, well provided with hairs and except the coxae, trochanter and tarsi with spines. *Coxae* viewed from below longer than wide. I. and II. equal and slightly longer than III. and IV. *Trochanters*, small, wider than long; I., II., III., with a short obtuse infero-lateral projection on outer side, bearing at summit a long hair and one or two of less length. *Femora*, all with long infero-lateral bristles, one pair near the distal end very long and projecting obliquely forward; femur IV. much longer than the others, unarmed and bowed to the curvature of the body; I., II., III., with a short dorsal spine, in I. and II. slightly in apical half; I., also with an internal lateral spine in the same half. *Patellae*, wider than long with a long slender spine at the apex, and an internal low protuberance. *Tibiae*, equal to the femora and about double the length of the tarsi; with two dorsal spines, one towards the apex, the other in the basal half; also a pair of lateral spines in the terminal third; I. and II. with two rows of long straight spines beneath (four or five in each row); III. and IV., one spine beneath in terminal third. *Metatarsi*, a little shorter than tibiae, with one spine near the middle and an acoustic seta a little behind it. *Metatarsi* IV., and *tarsi* IV., much slenderer than in the other legs. *Tarsi*, shorter than the metatarsi, without spines, cylindrical, with three slender slightly curved claws, the inferior one very small.

PEDICLE, short, in two pieces, the anterior convex, the posterior concave, chitinous.

ABDOMEN, oblong, oval, high and very convex in front, projecting over the cephalothorax and a little narrowed behind; without

a pattern, dull clay colour above and black beneath, well clothed all over mostly with shortish strong, curved hairs, springing from raised black bases ; just above the pedicle, hidden from above and transversely arranged—an equal number on each side of the medium line—some eight very long slender stiff black bristles directed forward ; on ventral surface in front of spinners a long narrow transverse straight vent, the entrance to the tracheal breathing apparatus ; the *pulmonary stigmata* in the usual position, one on each side of the epigaster.

ANAL TUBERCLE small, sub-triangular, obtusely rounded at distal margin, provided with long bristles.

SPINNERS, six in number, the *median pair* small, concealed between the others, one jointed. *Upper and lower pairs* about equal in size, stout, truncate-cone-shaped, dull dusky brown in colour ; two-jointed with the terminal part short.

EPIGYNE, figs. 1 and 2, an oval, reddish brown, transverse, convex chitinous plate, thickly rimmed laterally, close to epigastric border, hollowed out on the sides, and near its termination becoming shortly and somewhat narrowly tongue-shaped and deeply canaliculate with the end rounded and bent slightly inwards. Beneath this covering plate is another one membranous and pale, of which the lateral lobes and terminal crochet are exerted as an incomplete ring of processes around the end of the outer tongue.

T. margerisoni has the general appearance and build of one of the long-legged Linyphiæ. Its nearest British relative is *Taranucnus setosus* Camb., both species being distinguished from all others of the same group by one or more of the following features :—wide sternum, high clypeus, the armature of the legs, especially on the metatarsi and dorsum of the femora of one or both posterior pairs. In *T. setuosus* there is a dorsal femoral spine on both these pairs, but in *T. margerisoni*, this spine is wanting on legs IV. ; further, their epigynes are quite unlike each other (see below). Of the foreign forms the new spider approaches most nearly *Troglohyphantes cantabricus* Sim. (1911), especially with respect to the epigyne, but that species is larger (3.4 m.m.) and its third pair of legs longer than the fourth ; its epigyne is more raised above the surface of the abdomen, the median tongue-shaped process not so narrow, and the exposed lobes of the internal membranous plate take a much rounder, wider sweep.

T. margerisoni introduces a genus, *Troglohyphantes*, (Dr. Joseph, 1881), new to the British fauna. Half of the species in it were previously included in the Gen. *Taranucnus* Sim. and three others in Gen. *Typhloneta* Kulcz. The allocation of these spiders to one and the same genus has lately, after exhaustive study, been made by Dr. L. Fage*

*Archives de Zoologie Expérimentale et Générale, Tome 58, Fascicule 2, Jan., 1919.—'Études sur les Araignées cavernicoles, III. Le Genre *Troglohyphantes*.' Prof. L. Fage, to whose kindness I am indebted for copies of the three parts so far published.

of the Laboratoire Arago, Southern France. He also proposes briefly (leaving the details to a future memoir) a new natural classification of the Linyphieae into two divisions, based on the structure of the copulatory organs in both sexes.

Div. I., the palpal organs of the male provided with a long filiform, often rolled style; the copulatory pouch of the female, large, spacious, devoid of internal organs, *e.g.*, Linyphia, Labulla, Bathyphantes, Lessertia, Porrhomma.

Div. II., the style of the male palpal organs short, thick, lamellar and generally truncate at extremity; the copulatory pouch of the female more or less filled with an internal plate or tongue, *e.g.*, Leptyphantes, Microneta, Centromerus.

Taranucnus setosus Camb. belongs to the first division and *T. margerisoni* to the second, so that from this point of view they are far removed from each other, the former in fact being left the sole representative of its genus.

The Troglohyphantidæ occupy a narrow tract of territory between 42° and 46° N. Lat. from the Pyrenees to the Transylvanian mountains. They are mostly cave-dwellers, and the species local in distribution. A few of these are found out in the open also, and two species occur on high mountains in the vicinity of glaciers. Except their known restricted range, there is no reason, either geological or climatal in character or in that of their affinities, why a new species should not occur in Cumberland. Although no details of its habitat were obtainable, the latter would probably be similar to that of the forms which live in the open, *viz.*, the base of herbage in swampy places nearly in the water; the cave-dwellers also choosing the wettest spots in the crannies of the stalactites.*

MARO HUMICOLA, sp. nov.

Females, length 1.3 to 1.6 m.m., figs. 4-5-6.

Forepart of the spider yellowish brown; the legs and palpi of a clearer tint and the cephalothorax of a darker shade. *Pubescence* sparse.

CEPHALOTHORAX, longer than wide, oval, narrowed a little forward from level of coxæ of legs I, rounded both before and behind, widely so in front so as to form a distinct constriction in the marginal outline. *Caput* distinctly defined by converging lateral impressions, convex behind the eyes and the *profile line* well curved to the thoracic junction, behind which the posterior slope is short and a little excavated; *thoracic sutures* indistinctly indicated by faint slightly darker lines. No marginal or other markings.

OCULAR AREA, occupying the whole width of the upper front.

EYES, eight in two rows, all on black spots, moderately large and very closely grouped, the anterior centrals only dark coloured, the rest pearly white.

* Histoire Naturelle des Araignées, 2nd Edit., Tome I. Eugène Simon, p. 690, sub. Taranucnus.

Posterior row, very slightly, if any, backwards, the centrals a little the smaller and a diameter apart and distinctly nearer to the laterals than to each other. *Anterior eyes* nearly contiguous to each other, and with the laterals of the hinder row forming a regular semicircle directed forward, the centrals on a common suffusion much the smallest and the laterals the largest of the eight.

Lateral eyes on each side in contact and situated on a feeble common oblique prominence. *Central eye space* longer than broad and much narrower in front than behind.

CLYPEUS, much less in height than the ocular area.

FALCES long, stout, vertical, somewhat oblong, slightly curved externally and divergent on inner margin near apex. *Upper fang groove* with four pointed teeth. *Lower fang groove*, four close minute granular teeth. *Fang*, long, slender, tapering.

MAXILLAE, moderately long and strong, oblong, well inclined inwards, the internal margin a little bent over the labium; truncate at summit near which a short black serrula; outer margin and face with a few shortish stiff hairs.

LABIUM, wide and short, depressed transversely below and bluntly rounded at extremity.

STERNUM, slightly diffused blackish or not, almost round, convex, squarely truncate in front and shortly drawn out between the posterior coxae in a wide blunt process, with slightly converging sides: thinly supplied with upturned hairs.

PALPI, short, without a terminal claw. *Femora*, long, slender, curved, slightly enlarging upwards. *Patellae* very short, with weak apical spine. *Tibiae* enlarged gradually upwards from base. *Tarsi*, more than one-and-a-half times as long as the tibiae, acuminate, provided with hairs and a few long slender black spines.

LEGS. Order of length, 4, 1, 2, 3; long and strong, moderately supplied with hairs, more plentifully and serially arranged on tarsi, and rising from slightly raised black bases. *Femora* I. and IV., long and curved; in I. the end of the joint is straightened, giving the pair together a lyriform shape; II. and III., shorter and nearly straight. *Patellae* short, twice as long as wide, with a slight apical bristle and a small blunt protuberance on outer margin tipped with a single slender bristle. *Tibiae* III. and IV. with a long slender erect dorsal spine near the base, absent in I. and II. Tib. IV., with a long erect acoustic seta in the middle. *Metatarsi and tarsi* subequal, the latter if anything slightly the longer, and very slightly tapering. *Claws* 3, the two upper long, slender, curved, the lower one very small.

ABDOMEN, oblong oval, rounded before and behind, pale yellow brown, very slightly suffused blackish and projecting over cephalothorax. *Pubescence* little apparent.

SPINNERS, short, stout, truncate-cone shaped, surrounded by a lighter space; pale yellow brown in colour, clothed with short hairs.

SPIRACULAR AND EPIGYNAL AREAS. The same colour as the abdomen, the margin of the former being sometimes faintly indicated by a dark line.

EPIGYNE stands out at right angles to the abdomen, thus exposing both the upper and lower surfaces; somewhat complex in structure, large in proportion to the size of the animal, and its base close to the epigastric fold. Three figures, 4, 5 and 6, are given of this organ, and reference to them will obviate any necessity for further description. For purposes of comparison figures of the epigynes of the two allied species are also given, *minutus* fig. 7, and *falconeri* fig. 8.

Maro humicola, which, as its name implies, frequents

humus, agrees in general characteristics, disposition of eyes, build, etc., with *M. minutus* Camb., but the examples taken so far are a little larger and have a darker cephalothorax. It differs also in the structure and position of its epigyne, that organ in both *M. minutus* Camb. (fig. 6) and *M. falconerii* Jacks, which occur with it, being adpressed to the abdomen. No male has been met with, which could not be allocated either to one or other of the above two species. This sex not having materialised, the possibility must not be overlooked that the newly described species may only be another form of the female of *M. minutus*, but if so, the direction taken by the variation is, as far as I am aware, unique in the spider world. Until, however, this can be proved it will be as well to regard it as a distinct species. I may say that the Rev. O. Pickard Cambridge, to whom I sent a specimen, considered it to be such, and its publication has been until now withheld in the hope of obtaining a male.

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Blackbirds using the same nest twice.—With the exception of the Hirundines (Swallow and Martins) and perhaps the Dipper, it is very unusual for passerine birds to use the same nest for two broods. I can only recollect three such instances, viz., a Blackbird, a Robin and a Pied Wagtail; but in each case I had to presume that it was the same pair of birds that was using the nest twice. This year, however, in April, I found a Blackbird's nest in a bush about four yards from my dining room window, and with a little judicious trimming of the bush I was able to watch the proceedings throughout, at any time, from inside the room. Four eggs were laid, duly hatched and the four young birds left the nest about the middle of May. About a fortnight later we were much surprised to find the hen again sitting (I don't think the male Blackbird assists in incubating, I never remember having seen one, although he does his share in feeding the young ones). However, a second clutch of four eggs was hatched and four healthy youngsters left the nest on June 15th. So far as I could see the nest had not been repaired or altered in any way for the second brood. In this case there was not the slightest doubt about it being the same pair. The male was distinctly undersized, and had a slight (but very distinct) affection of the wings, which was most perceptible during the first few wing-beats when he took flight. I have no doubt that it was the same hen bird too, by several little incidents; one of which was she was so tame that she would allow several persons to stand quite close to the nest, when she was brooding, without showing any alarm. Baby Blackbirds always appear to me to leave their nests several days before they are competent to do so, which must result in great mortality among them.—HARRY B. BOOTH, Ben Rhydding.